Author Index

Ablin, R.J. 329, 376
Ahmann, D. L. 166
Anday, G.J. 90
Andrews, N.C. 190
Anghileri, L.J. 152
Ardenne, M. von 364
Armanious, A.W. 1

Balls, M. 501
Basu, T. K. 417
Beauduin, M. 422
Bernstein, A. D. 353
Bisel, H. F. 166
Blom, J. 139
Blotta, I. 461
Bonnabeau, R.C., jr. 1
Buda, J.A. 219
Burstein, N.A. 470
Bush, I. M. 376

Caputo, A. 461
Carey, R.W. 470
Chan, P. 40
Clothier, R. H. 501
Coetzee, M. L. 13
Cohen, M. H. 353
Costanzi, J. 238
Cuono, C. B. 1

Davis, H. L., jr. 190
DeCarvalho, S. 449
Deckers, C. 422
Delbeke, M.J. 520
Dines, D. E. 166
Dubin, A. 376

Fang, W. 273
Floridi, A. 461

Gailani, S. 244
Gallin, J. I. 46
Garry, V. F., jr. 429
Gold, J. 74
Goldberg, N. M. 201
Gonder, M.J. 329
Guinan, P. 376

Hahn, R.G. 34, 166
Hochman, A. 181

Jordan, S.W. 201

Kagan, A. R. 40
Kast, R. E. 249
Kirkpatrick, C. H. 46
Klock, J.C. 147
Kornfeld, M. 201
Kot, E. 320
Kovach, J. S. 34

Lagios, M. D. 22
Lakshmi, M. S. 335
Lancaster J. R. 1
Leone, L. 244
Leuchtenberger, C. 122
Leuchtenberger, R. 122
Levin, R. 40
Levine, P. H. 353
Lo Gerfo, P. 219
Lokich, J.J. 484
Longueville, J. 422

Madden, R. 190
Maisin, H. 422
McConnell, T. S. 201
McGaughey, C. 302
Merino, F. 283
Mims, C. H. 238
Mindlin, H.J. 90
Moertel, C.G. 34, 166
Molnár, L. 101
Moloney, W.C. 484
Moore, R. D. 429
Morris, H. P. 320
Morton, D. L. 294
Mossburg, W. L. 1
Moulton, A. 219
Mukkur, T. K. S. 273

Nabong, R. 376
Neufeld, L. 376
Nussbaum, H. 40

Obenrader, M. 13
Orye, E. 520
Ove, P. 13

Pease, J. B. 265
Pinkus, G. S. 484
Procaccini, D.J. 265
Procaccini, R. L. 265

Quan, L. 227

Raven, R.W. 417
Reemtsma, K. 219
Reitemeier, R.J. 34
Reitnauer, P.G. 364
Riley, S. 227
Rochlin, D. B. 190
Rónay, P. 101
Rowe, J. 227

Sadoff, L. 227
Schutt, A.J. 34, 166
Schweppe, J. S. 320
Schwind, J.V. 172
Sedransk, N. 190
Sherbet, G.V. 335
Short, J. 13
Silinskas, K.C. 273
Smoron, G. L. 320
Soanes, W.A. 329

Author Index

Ablin, R.J. 329, 376
Ahmann, D. L. 166
Anday, G.J. 90
Andrews, N.C. 190
Anghileri, L.J. 152
Ardenne, M. von 364
Armanious, A.W. 1

Balls, M. 501
Basu, T. K. 417
Beauduin, M. 422
Bernstein, A. D. 353
Bisel, H. F. 166
Blom, J. 139
Blotta, I. 461
Bonnabeau, R.C., jr. 1
Buda, J.A. 219
Burstein, N.A. 470
Bush, I. M. 376

Caputo, A. 461
Carey, R.W. 470
Chan, P. 40
Clothier, R. H. 501
Coetzee, M. L. 13
Cohen, M. H. 353
Costanzi, J. 238
Cuono, C. B. 1

Davis, H. L., jr. 190
DeCarvalho, S. 449
Deckers, C. 422
Delbeke, M.J. 520
Dines, D. E. 166
Dubin, A. 376

Fang, W. 273
Floridi, A. 461

Gailani, S. 244
Gallin, J. I. 46
Garry, V. F., jr. 429
Gold, J. 74
Goldberg, N. M. 201
Gonder, M.J. 329
Guinan, P. 376

Hahn, R.G. 34, 166
Hochman, A. 181

Jordan, S.W. 201

Kagan, A. R. 40
Kast, R. E. 249
Kirkpatrick, C. H. 46
Klock, J.C. 147
Kornfeld, M. 201
Kot, E. 320
Kovach, J. S. 34

Lagios, M. D. 22
Lakshmi, M. S. 335
Lancaster J. R. 1
Leone, L. 244
Leuchtenberger, C. 122
Leuchtenberger, R. 122
Levin, R. 40
Levine, P. H. 353
Lo Gerfo, P. 219
Lokich, J.J. 484
Longueville, J. 422

Madden, R. 190
Maisin, H. 422
McConnell, T. S. 201
McGaughey, C. 302
Merino, F. 283
Mims, C. H. 238
Mindlin, H.J. 90
Moertel, C.G. 34, 166
Molnár, L. 101
Moloney, W.C. 484
Moore, R. D. 429
Morris, H. P. 320
Morton, D. L. 294
Mossburg, W. L. 1
Moulton, A. 219
Mukkur, T. K. S. 273

Nabong, R. 376
Neufeld, L. 376
Nussbaum, H. 40

Obenrader, M. 13
Orye, E. 520
Ove, P. 13

Pease, J. B. 265
Pinkus, G. S. 484
Procaccini, D.J. 265
Procaccini, R. L. 265

Quan, L. 227

Raven, R.W. 417
Reemtsma, K. 219
Reitemeier, R.J. 34
Reitnauer, P.G. 364
Riley, S. 227
Rochlin, D. B. 190
Rónay, P. 101
Rowe, J. 227

Sadoff, L. 227
Schutt, A.J. 34, 166
Schweppe, J. S. 320
Schwind, J.V. 172
Sedransk, N. 190
Sherbet, G.V. 335
Short, J. 13
Silinskas, K.C. 273
Smoron, G. L. 320
Soanes, W.A. 329

Sparkes, R. S. 90
Stamm, M. E. 294
Stein-Werblowsky, R. 439
Stoughton, W. B. 1
Stutz, F. H. 139
Suciu-Foca, N. 219

Tapolcsányi, L. 101
Tormey, D.C. 139, 244

Vorherr, H. 201, 382
Vorherr, U. F. 201
Vuckovich, N. 147

Walach, N. 181
Wambersie, A. 422
Warren, S. L. 294
Weber, C. 219
Weiss, A.J. 190
Wheeler, B. 219
Williams, D.C. 417
Wilson, W. L. 190
Winters, W. D. 294

Subject Index

Actinomycin D 429
ADH 201
Advanced cancer 422
Aetiology 101
Age 40
Alkaline phosphatase 417
ε-Aminocaproic acid (EACA) 249
Amphibia 501
Antibody-mediated 273
Antigen-antibody complexes (AAC) 249
Antigens 273, 283
Anti gluconeogenesis treatment of cancer 74
Antilymphocyte serum (ALS) 249
Astrocytomas 335

Basic protein of central nervous system myelin (BP) 249
BCNU 244
Bone marrow 147
Breast 139
Breast cancer 470

Calcium 417
Calcium magnesium 152
Cancer 46, 147, 219, 244
Cancer therapy 302
Candidiasis 46
Carcinoembryonic antigen 219, 376
Carcinoma 139, 166
Carcinoma of the lip (upper and lower) 101
C57 Black strain 122
Cell fragmentation 429
Cellular immunity 46
Cellular lipoprotein 152
Chemotaxis 46
Chemotherapy 166, 190, 244
Chlorpromazine 429
Cholesterol 417
Choriocarcinoma in male 227

13,14 chromosome 90
Chronic inhalation 122
Cigarette smoke 122
Clinical features 484
Clinicopathology 101
Clonal karyotype evolution 520
Coccidioidomycosis 46
Colorectal cancer 34
Combination chemotherapy 139
Combination therapy 422
Common tumor antigen (CTA) 249
Complement (C′) 249
Confluent cell monolayers 429
Cortisol 470
Cryotherapy 329
Cyclophosphamide therapy 34
Cytograf (laser) 429
Cytosine arabinoside 190
Cytotoxicity 273, 429

Detendomer 249
Diagnosis 101
Dimethylbenz(α)anthracene 273
DNA synthesis after irradiation 320
DNA template activity 265
DS carcinosarcoma 364
D. viridescens 265

Ectopic ADH secretion 201
Ectopic hormone secretion 382
Elderly Hodgkin's disease 484
Elevated testosterone levels 227
Encephalitogenic determinant (ED) 249
Epidemiology 484
Epstein-Barr virus 353
Estradiol 470
17 β-estradiol 22
External radiation 422

5-Fluorouracil 166
Foetal brain cells 335

5-FU 244

Gastrointestinal carcinoma 244
Genetic, diagnostic, Therapeutic aspects 382
Genophilic C-RNA 449
Geriatric Hodgkin's disease 484
Glutamic-pyruvic transaminase 417
Growth rate 335

Hairy cell 449
Hepatic functions 417
Hepatomas 13, 152
Histology 40
Histone hydrolase 265
Hodgkin's disease 238, 484
Homograft 439
Hormonally dependent growth *in vitro* 22
Hormone levels in CSF (cerebrospinal fluid) 227
Hormone therapy 470
Host-tumor symbiosis 449
Human breast carcinoma 22
Human tumor characteristics 294
Hybrid antigen 449

Immunoclustering 449
Immunologic island 449
Immunologic reconstitution 46
Immunoradiotherapy 302
Immunosuppressed primates 353
Immunosurveillance 172, 439
Immunotherapy 46, 439
Interepithelial antibodies 329
Intrathoracic metastasis 1
In vitro organ explant culture 22
Irradiation 40
Isophosphamide therapy 34

Leukemia 147, 283
Leukemia therapy 302
Leukemized macrophage 449
Limb regeneration 265
Liver 152
Liver irradiation effects 320
Localization 201
Longevity 90
Lung cancer 122
Lymph node metastases 101
Lymphocyte blast transformation (LBT) 249
Lymphocyte Migration 439
Lymphosarcoma 238

Male breast cancer 181
Malignancy 335
Malignant cell triggering 249
Malignant lymphoma 238
Malignant tumors 201
Mammary 273
Marker chromosomes 520
Marrow transplantation 147
Mastectomy 181
Meningiomas 335
Metastasis therapy 302
Methotrexate 422
Mice 122
Microwave transmission 294
Microwave tumor analysis 294
Minimal immunosuppressive therapy (MIST) 449
Mixed lymphocyte cultures 219
Mucoprotein 417
Myelomonocytic leukemia 449

N-Acetylgalactosamin (NAGA) 249
Neoantigen 449
Non-hepatic cancer 417
Nucleoprotein synthesis 320

O_2 multi-step treatment 364
O_2 supply time constant 364
Orchiectomy 181
Osoelectric points 335
Ovine prolactin 22
Oxidative phosphorylation 461

Paralysis 439
Phospholipids 152
Phytohemagglutinin 219
Phytohemagglutinin (PHA) 249
Pleural recurrence 1
pO_2 measurements 364
pO_2 microelectrode 364

Post-therapeutic phase 364
Primitive cells 172
Progesterone 470
Progesterone treatment 227
Prostaglandin 439
Prostaglandin antagonist 439
Prostatic cancer 329, 376
Proteins 283, 417

Radiation therapy 181
Radioiodinated antibodies 302
Radioiodine 40
Radiotherapy 302
Rauscher leukemia virus 353
Recurrent, local 1
Review 501
RNA 152
Rotenone 429

Sarcoma 1
Srum protein 13
Skin 1
Snell strain 122
Solid tumors 190, 520
Spontaneous tumours 501
Stilbestrol 181
Structural and numerical chromosome aberrations 520
Submaxillary glands 461
Surface charge 335

TATA 273
T cells 219
Testosterone 22, 470
Therapeutic efficiency 364
Thymidine 470
Thyroid 40
Tissue culture 470
Transfer factor 46
Translocation 90
Transplantation 147, 273
Treatment of cancer by inhibition of gluconeogenesis 74
Treatment (surgical, combined and radiotherapy) 101
Tricholeukocyte 449
Tumor 273, 278, 439
Tumor diagnosis 294
Tumor growth 13
Tumor inhibition by PEP carboxykinase inhibition 74
Tumor inhibition by pyruvate carboxylase inhibition 74
Tumor irradiation effects 320
Tumor therapy 302
Tumour pO_2 level 364
Tumoral and normal mitochondria 461

Unequal competition 172
Uropod, foot appendage 449

Vascular lesions 122

Wiskott-Aldrich syndrome 46

γ-Immunoglobulin (IgG) 249

Vol. 29, 1974

Oncology

Journal of Clinical and Experimental Cancer Research
with a Section on Its Biological Background

Editor: Victor Richards, San Francisco, Calif.

General Editorial Board: Michael Balls, Norwich; Joachim Burhenne, San Francisco, Calif.; Ray M. Dutcher, Bethesda, Md.; George Klein, Stockholm; H.T. Lynch, Omaha, Nebr.; Robert Pollack, San Francisco, Calif.

Section "Oncogenesis-Morphogenesis" (Developmental and General Biological Background of Cancer)
Section Editor: Alexander Wolsky, New York, N.Y.

Serge Neukomm, Lausanne
G.V. Sherbet, London
Boris Sokoloff, Lakeland, Fla.
Sulo Toivonen, Helsinki

Karger · Basel · München · Paris · London · New York · Sydney

S. Karger · Basel · München · Paris · London · New York · Sydney
Arnold-Böcklin-Strasse 25, CH-4011 Basel (Switzerland)

All rights, including that of translation into other languages, reserved.
Photomechanic reproduction (photocopy, microcopy) of this book or parts thereof without special permission of the publishers is prohibited.

© Copyright 1974 by S. Karger AG, Verlag für Medizin und Naturwissenschaften, Basel
Printed in Switzerland by Buchdruckerei Pochon-Jent AG, Berne
Blocks: Aberegg-Steiner & Cie. AG, Berne

Contents

Bonnabeau, R.C., jr.; Stoughton, W.B.; Armanious, A.W.; Cuono, C.B.; Mossburg, W.L., and Lancaster, J.R.: Dermatofibrosarcoma protuberans. Report of a Case with Pulmonary Metastasis and Multiple Intrathoracic Recurrences 1

Ove, P.; Coetzee, M.L.; Obenrader, M., and Short, L.: Loss of a Serum Protein from Hepatoma-Bearing Animals 13

Lagios, M.D.: Hormonally Enhanced Proliferation of Human Breast Cancer in Organ Culture. An *in vitro* System for Assessment of Specific Hormonal Response 22

Kovach, J.S.; Schutt, A.J.; Hahn, R.G.; Reitemeier, R.J., and Moertel, C.G.: A Phase 2 Study of Intermittent High Dose Isophosphamide Therapy of Advanced Colorectal Cancer 34

Kagan, A.R.; Nussbaum, H.; Chan, P., and Levin, R.: Thyroid Carcinoma: Is Postoperative External Irradiation Indicated? 40

Kirkpatrick, C.H. and Gallin, J.I.: Treatment of Infectious and Neoplastic Diseases with Transfer Factor 46

Gold, J.: Inhibition of Gluconeogenesis at the Phosphoenolpyruvate Carboxykinase and Pyruvate Carboxylase Reactions, as a Means of Cancer Chemotherapy 74

Molnár, L.; Rónay, P., and Tapolcsányi, L.: Carcinoma of the Lip. Analysis of the Material of 25 Years 101

Leuchtenberger, C. and Leuchtenberger, R.: Differential Response of Snell's and C57 Black Mice to Chronic Inhalation of Cigarette Smoke 122

Stutz, F.H.; Blom, J., and Tormey, D.C.: Combination Chemotherapy in Disseminated Carcinoma of the Breast 139

Klock, J.C. and Vuckovich, N.: Bone Marrow Transplantation in the Treatment of Acute Leukemia 147

Anghileri, L.J.: Cellular Lipoproteins, Calcium and Magnesium in Novikoff Hepatoma, Liver of Tumor-Bearing and Liver of Normal Rats 152

Ahmann, D.L.; Moertel, C.G.; Bisel, H.F.; Hahn, R.G.; Schutt, A.J., and Dines, D.E.: A Controlled Evaluation of 5-Fluorouracil Utilizing a Single Injection Technique 166

Walach, N. and Hochman, A.: Male Breast Cancer 181

Davis, H.L., jr.; Rochlin, D.B.; Weiss, A.J.; Wilson, W.L.; Andrews, N.C.; Madden, R., and Sedransk, N.: Cytosine Arabinoside (NSC 63878) Toxicity and Antitumor Activity in Human Solid Tumors 190

Vorherr, H.; Vorherr, U.F.; McConnell, T.S.; Goldberg, N.M.; Kornfeld, M., and Jordan, S.W.: Localization and Origin of Antidiuretic Principle in Para-Endocrine-Active Malignant Tumors 201

Suciu-Foca, N.; Buda, J.A.; Lo Gerfo, P.; Moulton, A.; Weber, C.; Wheeler, B., and Reemtsma, K.: Serum Inhibitory Factors in Cancer 219

SADOFF, L.; RILEY, S.; QUAN, L., and ROWE, J.: New Endocrine Observations in a Male Patient with Choriocarcinoma 227
MIMS, C. H. and COSTANZI, J.J.: Conversion of Hodgkin's Disease to Lymphoblastic Lymphosarcoma 238
TORMEY, D.C.; GAILANI, S., and LEONE, L.: Phase II Evaluation of BCNU and 5-FU in Gastrointestinal Carcinomas 244
SILINSKAS, K.C.; FANG, W., and MUKKUR, T. K. S.: Demonstration of Tumor-Associated Transplantation Antigens in Rat Mammary Tumors Induced by 7,12-Dimethylbenz (α) Anthracence 273
MERINO, F.: Serum Protein Changes in the Development of a Transplantable Murine Ascites Myeloid Leukemia 283
STAMM, M. E.; WINTERS, W. D.; MORTON, D. L., and WARREN, S. L.: Microwave Characteristics of Human Tumor Cells 294
MCGAUGHEY, C.: Feasibility of Tumor Immunoradiotherapy Using Radioiodinated Antibodies to Tumor-Specific Cell Membrane Antigens with Emphasis on Leukemias and Early Metastases 320
SMORON, G. L.; KOT, E.; SCHWEPPE, J. S., and MORRIS H. P.: DNA and Nucleoprotein Changes in Liver and Tumor Nuclei after Irradiation 320
ABLIN, R.J.; GONDER, M.J., and SOANES, W.A.: Immunohistologic Studies of Carcinoma of the Prostate. III. Elution of Interepithelial Antibodies from Carcinomatous Human Prostate Tissue Following Cryoprostatectomy 329
COHEN, M. H.; BERNSTEIN, A. D., and LEVINE, P. H.: Hematological and Serological Effects of Rauscher Leukemia Virus and Epstein-Barr Virus on Immunosuppressed Newborn Subhuman Primates 353
ARDENNE, VON, M. and REITNAUER, P.G.: Measuring the pO_2 Time Behaviour in Tumours as a Valuable Tool in Cancer Therapy 364
NEUFELD, L.; DUBIN, A.; GUINAN, P.; NABONG, R.; ABLIN, R.J., and BUSH, I. M.: Carcinoembryonic Antigen in the Diagnosis of Prostate Carcinoma 376
VORHERR, H.: Para-Endocrine Tumor Activity with Emphasis on Ectopic ADH Secretion. Genetic, Diagnostic, Prognostic and Therapeutic Aspects 382
BASU, T. K.; RAVEN, R.W., and WILLIAMS, D.C.: Some Metabolic Functions of Liver in Patients with Advanced Non-Hepatic Cancer 417
BEAUDUIN, M.; LONGUEVILLE, J.; WAMBERSIE, A.; DECKERS, C., and MAISIN, H.: Combination of Methotrexate and External Irradiation in Advanced Cancer Patients 422
DECARVALHO, S.: Cytologic Expressions of Spontaneous Tumor-Specific Immunity in an Untreated Myelomonocytic Leukemia. Sustained, Complete Remission Following Minimal Immunosuppressive Therapy (with 2 colour plates) 449
FLORIDI, A.; BLOTTA, I., and CAPUTO, A.: Metabolic Properties of Mouse Transplantable Adenocarcinoma. III. Oxidative Phosphorylation by Tumor and Normal Submaxillary Gland Mitochondria 461
BURSTEIN, N.A. and CAREY, R.W.: *In vitro* Assay for Human Breast Cancer Hormone Responsiveness. A Study of 25 Cases with Clinical Correlation 470
LOKICH, J.J.; PINKUS, G. S., and MOLONEY, W.C.: Hodgkin's Disease in the Elderly 484
BALLS, M. and CLOTHIER, R. H.: Spontaneous Tumours in Amphibia. A Review .. 501

ORYE, E. and DELBEKE, M.J.: Clonal Karyotype Evolution in Solid Tumours in Children 520

Oncogenesis – Morphogenesis

ANDAY, G.J.; SPARKES, R. S., and MINDLIN, H.J. 13/14 Chromosome Translocation and Longevity in Man 90
SCHWIND, J.V.: Cancer: Regressive Evolution? Preliminary Report of a New Hypothesis 172
KAST, R. E.: A Theory of Lymphocyte Blast Transformation (LBT) and Malignant Change Based on Proteolytic Cleavage of a Trigger Peptide: the Detendomer.. 249
PROCACCINI, D.J.; PROCACCINI, R. L., and PEASE, J. B.: Histone Hydrolase Activity in Regeneration Limbs of the Adult Newt. *Diemictylus viridescens*; 265
SHERBET, G.V. and LAKSHMI, M. S.: The Surface Properties of Some Human Intracranial Tumour Cell Lines in Relation to Their Malignancy 335
GARRY, V. F., jr. and MOORE, R. D.: Use of the Cytograf to Determine Cytotoxicity in Fibroblast Cell Cultures 429
STEIN-WERBLOWSKI, R.: The Rejection of Malignant and Non-Malignant Homografts: A New Hypothesis 439

Book Reviews 98, 348
Varia 100, 272, 351
Author Index 534
Subject Index 536
Contents Vol. 29 ..... after 538

Author Index

Ablin, R. J. 423
Alavaikko, M. J. 204
Anghileri, L. J. 304
Auslander, L. 493

Baker, D. G. 217
Barbato, I. W. 217
Barbato, L. M. 217
Basu, T. K. 197
Bateman, J. R. 236
Bender, R. A. 328
Benuck, I. 429
Bogdon, D. L. 236
Borland, R. 485
Brook, G. 493
Bruns, G. R. 423
Bush, I. M. 423

Carruthers, C. 125
Chen, Y. M. 386
Čihák, A. 405
Cohen, Y. 493
Copeland, D. 393
Corder, M. P. 81
Criss, W. E. 43

Dawson, A. 362
Dendy, P. P. 362
Deresinski, S. C. 318
Deutsch, M. 509
Dinicola, A. F. 442
Donaldson, D. 197, 334
Drexler, J. 324
Fadei, L. 113
Fardon, J. C. 436
Feuer, G. 499
Flannery, E. P. 81
Fried, A. B. 509

Galt, R. M. 1
Garola, R. 105
Garry, V. F., jr. 517
Gerner, R. E. 152
Gershbein, L. L. 429
Gordan, G. S. 147
Guinan, P. D. 423

Haim, S. 273
Hard, G. C. 485
Harris, J. 33, 393
Harris, L. W. 517
Hecker, E. 105
Horn, H. 147
Horn, Y. 97
Hum, G. J. 236
Hunter, L. 257

Issidorides, M. R. 156
Jennings, B. R. 334

Kaipainen, W. J. 204
Kaplan, A. R. 210
Karim, F. 377
Kashmiri, R. 257
Katsorchis, T. 156
Kellen, J. A. 467, 499
Knock, F. E. 1

Lane, M. 458
Lehane, D. E. 458
Levina, N. V. 177
Levy, C. M. 105
Lo, J. S. 467
Lynch, H. T. 210
Magin, C. 105
Malák, G. 278
Martínez, J. C. 105
Maruyama, Y. 85, 257
Mason, J. M. 334
Maximuke, P. P. 231
Meeker, W. R. 257
Mekler, L. B. 177
Mekori, T. 273
Merino, F. 141
Mirakian, A. 467
Mokka, R. E. 204
Moore, G. E. 152
Moraru, I. 113
Moses, B. 257
Muggia, F. M. 353
Mulherkar, L. 529

Nutini, L. G. 436

Oester, Y. T. 1
Onuigbo, W. I. B. 294

Parsons, J. A. 509
Perelmutter, L. 393
Petrali, J. P. 517
Phillip, M. J. 231
Poydock, M. E. 436

Rajakumari, K. 23
Rao, T. V. 23
Rashid, A. 393
Reddy, C. R. R. M. 23, 134
Reich, E. 97
Robinson, E. 192, 273
Rónay, P. 244

Sartiano, G. 509
Sengar, D. P. S. 393
Shmoulevitch, P. 192
Shurrager, P. S. 429
Sicard, R. E. 442
Singh, D. V. 386
Skorikova, A. S. 177
Skurkovich, S. V. 177
Sobel, J. D. 493
Sotaniemi, E. A. 204
Stein-Werblowsky, R. 169
Stevens, D. A. 318

Stewart, T. H. M. 33, 393
Sutherland, J. 85
Swain, A. 449
Sylvester, R. 1

Tapolcsányi, L. 278
Telang, N. T. 529
Thews, G. 475
Tóth, J. 244
Trounce, J. R. 449

Utley, J. F. 257

Vaupel, P. 475
Vegh, I. 105
Vider, M. 257

Walach, N. 97
Wheeler, T. K. 362
Williams, D. C. 197

Subject Index

Acid mucopolysaccarides metabolism 304
Actinomycin D 81
Adenylate cyclase 43
Adrenal metastasis 294
Advanced cancer 458
Aetiology of the GP 244
Anergy 169
5-Azacytidine 405

B-16 melanomas 386
Bone marrow cells 517
Breast cancer 147, 192

Cachexia 169
cAMP 43
Cancer 43, 197
Cancer chemotherapy 449
Cancer Family 'G' 210
Cancer Family Syndrome 210
Cancer genetics 210
Cancer therapy 278
Carcinoembryonic antigen (CEA) 257
Carcinogenic effect of hydrazine 529
Carcinogenicity 499
Carcinogens 231
Carcinoma of the liver 204
Carcinomatosis 328
Cell clumping 517
Cell cycle 177
Cell division 177
Cell-mediated response 217
Cell membranes 177
Cellular immunity 273
cGMP 43
Chemical carcinogenesis 177
Chemotherapy 81, 152, 362, 377
Chick morphogenesis 529
Childen 23
Cholinesterase production 517
Clomiphene citrate 105
Competitive effect 105
Conformational transitions of cell membrane macromolecules 177
Cost-yield 324
Coumarin treatment 499
Coupled tumor protein antigen 231
Critical O_2 supply 475
Critical O_2 time constant 475
Cytogenetical structure 113
Cytostatic activity 405

Dedifferentiation 169
Degradation of Polysomes 405
Delayed hypersensitivity 85
Dibutyryl cyclic adenosine monophosphate (DBcAMP) 517
Diffuse malignant mesothelioma 152
Dimethylbenz(α)anthracene 499
Dimethylnitrosamine 485
Diminutive 324
DNA polymerase 1
Drug metabolism 204
Drug resistance 405
Drug therapy 204
DS-carcinosarcoma 475
Dynamic changes 97

Effects on DNA and RNA 405
Electrophoresis 334
Embryotoxicity 405
Endodermal 23
Enzyme induction 405
Ependymoma 467
Epidermal carcinogenesis 125
Epidermal proteins 125
Erythrocyte maturation 517
Estradiol-binding-protein 105
Extragonadal 23

Fibrous proteins 125
5-Fluorouracil (5-FU) 377

Gastric pseudolymphoma (GP) 244
Gastroenteric and breast carcinoma, treatment with Mitomycin-C 236
Gastrointestinal malignancy 377
α_2-Globulin 423
GP, clinical symptoms 244
GP, malignant transformation 244
GP, treatment 244
Guanylate cyclase 43

Hard palate cancer 134
Heparin 304
Hepatic metabolism 499
Hepatoma 304
Herpes simplex 318
High cancer risk family 210
Histologic structure of the GP 244
Histones 1
Hodgkin's Disease 449
Human breast cancer 105
Human cancer metastasis 294
Humoral immunoregulatory factor(s) 423
Hyaluronic acid 304
Hypothesis on origin 134

Immune dysfunction 231
Immune function cancer patients 33, 393
Immune reactivity 231
Immune response 273
Immunocompetence 458
Immunoglobulins 141
Immunology 141
Immunoprophylaxis 467
Impaired gastric secretion 405
In vitro culture of tumor cells 485
Incorporation 405
Infection in compromised hosts 318
Inhibition of leukocyte migration 423
Intracerebral tumors 429
Intraductal carcinoma 278

Leukemia 156
Leukemia L1210 429
Lipase digestion 386
Liver parameters 97
Liver scan 97
Lung cancer 353
Lymphocyte cultures 273
Lymphocyte stimulation 273
Lymphocyte transformation test 273
Lymphocytes 177
Lymphoma cutis 273
Lymphopenia 85
Lymphotoxin 217

Mammary cancer 278
Mechanism of its action 529
Melanoma 509
Membrane phospholipid 169
Meninges 328
Metabolic transformations 405
Metastases 493
Methotrexate 328
Mitomycin-C, once weekly, intravenously (response, toxicity) 236
Mitomycin-C, review of recent literature (schedules, responses) 236
Mitotic index 436
Mixed lymphocyte reactivity 33, 393
Modulation of liver regeneration 405
Monolayer culture 362
Morbus Paget 278
Morphological patterns 113
Motor cortex 156
Multiple myeloma 318

Negligency of mammary cancer 278
Neoplastic cells 436
Neuroendocrinology 442
Neurons 156
Newt 442
Nipple 278
Nonantigen 436
Normal liver 304

Objective measurements 97
Opportunistic infection 318
O_2 responses during hyperoxia 475
Organ selectivity 294
Osteogenic sarcoma 493
Ovarian papillary adenocarcinoma 113

Paget's disease 278
Pathogenesis 231

Pericarditis 81
Phosphodiesterase 43
Phosphoprotein phosphatase 43
Physiologic degeneration 231
Phytohemagglutinin (PHA) 273
Plasma alkaline phosphatase 197
Plasma calcium 197
Plasma mucoprotein 197
Plasma testosterone 147
Po_2 distribution in tumor tissue 475
Po_2 histograms 475
Po_2 microelectrode 475
Polyp 324
Predictive tests *in vitro* 362
Pregnancy 499
Proctosigmoidoscopy 324
Prolonged survivors 377
Protein 156
Protein kinase 43
Proteins 334
Prostaglandin 169
Prostaglandin antagonist 169
Prostatic cancer 423
Pyramidal disorder 156

Radiation 81
Radio-enzyme method 147
Radiogold 97
Radiotherapy 257, 509
Rat kidney tumors 485
Regeneration 334, 442
Renal mesenchymal tumors 485
Reverse smoking females 134
Ribosomes 467
Rifamycins 1
RNA 156
Rosettes 449

Sarcoma 141
Secondary tumor growth 429
Selective action 436
Selective metastasis 294
Sensitivity tests 1
Serial monitoring patterns 257
Serositis 81
SH inhibitors 1
Shock 429
Sinus tumour 23
Skeletal metastases 197
Sonneborne's heredity 177
Spontaneous tumors 436
^{85}Sr scan 493
Standard loading dose (SLD) 377
Stomach 244
Stress 429
Stress-tumor interaction 429
Subcellular distribution 304

Teilum 23
Thoracic radiation 85
Thymus-dependent lymphocyte (t cells) 273
T lymphocytes 449
Tumor cell kinetics 353
Tumor immunity 458
Tumor immunology 33, 217, 393, 467
Tumor resistance 85
Tumour 169
Twins 192
Tyrosinase activity 386
Tyrosinase isozymes 386
Tyrosine aminotransferase 405

Urea-extracted proteins 125
Uridine kinase 405
Urinary hydroxyproline 197

Vagina 509
Viral carcinogenesis 177

Walker carcinosarcoma 429
Weekly dose 377
Wound healing 334

Vol. 30, 1974

Oncology

Journal of Clinical and Experimental Cancer Research
with a Section on Its Biological Background

Editor: Victor Richards, San Francisco, Calif.

General Editorial Board: Michael Balls, Norwich; Joachim Burhenne, San Francisco, Calif.; George Klein, Stockholm; H.T. Lynch, Omaha, Nebr.; Robert Pollack, San Francisco, Calif.

Section "Oncogenesis-Morphogenesis" (Developmental and General Biological Background of Cancer)
Section Editor: Alexander Wolsky, New York, N.Y.

G.V. Sherbet, London
Boris Sokoloff, Lakeland, Fla.
Sulo Toivonen, Helsinki

Karger · Basel · München · Paris · London · New York · Sydney

S. Karger · Basel · München · Paris · London · New York · Sydney
Arnold-Böcklin-Strasse 25, CH-4011 Basel (Switzerland)

All rights, including that of translation into other languages, reserved.
Photomechanic reproduction (photocopy, microcopy) of this book or parts thereof without special permission of the publishers is prohibited.

© Copyright 1974 by S. Karger AG, Verlag für Medizin und Naturwissenschaften, Basel
Printed in Switzerland by Buchdruckerei Pochon-Jent AG, Berne

Contents

KNOCK, F. E.; GALT, R. M.; OESTER, Y.T., and SYLVESTER, R.: *In vitro* Estimate of Sensitivity of Individual Human Tumors to Antitumor Agents 1

RAO, T. V.; RAJAKUMARI, K., and REDDY, C.R.R.M.: Extragonadal Endodermal Sinus Tumour of Teilum Report of Two Cases and Review of Literature 23

HARRIS, J. and STEWART, T. H. M.: Mixed Lymphocyte Reactivity of Patients with Solid Tumors 33

CRISS, W. E.: Second Messenger System in Neoplasia 43

CORDER, M. P. and FLANNERY, E. P.: Possible Radiation Pericarditis Precipitated by Actinomycin D 81

SUTHERLAND, J. and MARUYAMA, Y.: Thoracic Irradiation – Induced Lymphopenia in Mice 85

HORN, Y.; WALACH, N., and REICH, E.: Dynamic Changes in Liver Parameters as Measured in Repeated Scintigrams 97

GAROLA, R.; LEVY, C. M.; VEGH, I.; MAGIN, C.; MARTÍNEZ, J. C., and HECKER, E.: *In vivo* Blockade of the Estradiol-Binding-Protein (EBP) by Clomiphene Citrate in Human Breast Cancer 105

MORARU, I. and FADEI, L.: Comparative Morphological and Cytogenetical Studies on Human Ovarian Papillary Adenocarcinomas 113

CARRUTHERS, C.: Differences in the Urea-Extracted or Fibrous Proteins of Mouse Epidermis at Various Stages of Malignant Transformation 125

REDDY, C.R.R.M.: Hypothesis on the Origin of the Carcinoma of the Hard Palate . 134

MERINO, F.: Serum Immunoglobulin Levels in Mice Bearing a Chemically Induced Sarcoma 141

HORN, H. and GORDAN, G. S.: Plasma Testosterone in Advanced Breast Cancer .. 147

GERNER, R. E. and Moore, G. E.: Chemotherapy of Malignant Mesothelioma 152

KATSORCHIS, T. and ISSIDORIDES, M. R.: A Catological Study of Abnormal Distribution of RNA and Protein in Motor Cortex of a Case with Leukemia and Pyramidal Symptoms 156

MEKLER, L. B.; SKORIKOVA, A. S.; LEVINA, N. V., and SKURKOVICH, S.V.: On the Possibility of *in vitro* Transformation of Human Peripheral Blood Lymphocytes by Chemical Carcinogens 177

SHMOULEVITCH, P. and ROBINSON, E.: Cancer of the Breast in Twin Sisters 192

BASU, T. K.; DONALDSON, D., and WILLIAMS, D. C.: Urinary Hydroxyproline and Plasma Mucoprotein as an Indication of the Presence of Bone Metastases 197

SOTANIEMI, E. A.; ALAVAIKKO, M. J.; KAIPAINEN, W. J., and MOKKA, R. E.: Primary Liver Cancer and Drug Therapy 204

LYNCH, H. T. and KAPLAN, A. R.: Cancer Condordance and the Hypothesis of Autosomal Dominant Transmission of Cancer Diathesis in a Remarkable Kindred 210

Barbato, L. M.; Barbato, I. W., and Baker, D. G.: Cell-Mediated Response to a Rat Gliosarcoma: the Mode of Action of Lymphocytes and Peritoneal Cells ... 217
Phillip, M. J. and Maximuke, P. P.: Age as a Variable in the Effectiveness of a Coupled Tumor Protein Antigen on the Growth of Transplanted Tumors in Inbred Mice ... 231
Hum, G. J.; Bogdon, D. L., and Bateman, J. R.: Phase I–II Evaluation of Weekly Mitomycin-C (NSC-26980) for Patients with Metastatic GI and Breast Malignancies. With Review of Recent Literature ... 236
Tóth, J. and Rónay, P.: Gastric Pseudolymphomas Resembling Angioproliferative Lymph Node Hyperplasia ... 244
Vider, M.; Kashmiri, R.; Hunter, L.; Moses, B.; Meeker, W. R.; Utley, J. F., and Maruyama, Y.: Carcinoembryonic Antigen (CEA) Monitoring in the Management of Radiotherapeutic Patients ... 257
Mekori, T.; Robinson, E., and Haim, S.: Lymphocyte Stimulation in Patients with Lymphoma Cutis ... 273
Malák, G. and Tapolcsányi, L.: Characteristics of Paget's Carcinoma of the Nipple and Problems of its Negligency ... 278
Onuigbo, W. I. B.: Organ Selectivity in Human Cancer Metastasis. A Review ... 294
Anghileri, L. J.: Metabolism of Acid Mucopolysaccharides in Hepatoma and in Normal Liver ... 304
Deresinski, S. C. and Stevens, D. A.: Disseminated Herpes simplex in Untreated Multiple Myeloma. Paradox of Present Concepts of Immune Defects ... 318
Drexler, J.: Routine Proctosigmoidoscopy: How Often? ... 324
Bender, R.A.: Meningeal Carcinomatosis: Treatment with Intrathecal Methotrexate ... 328
Muggia, F. M.: Cell Kinetic Studies in Patients with Lung Cancer ... 353
Wheeler, T. K.; Dendy, P. P., and Dawson, A.: Assessment of an *in vitro* Screening Test of Cytotoxic Agents in the Treatment of Advanced Malignant Disease . 362
Karim, F.: Impressions on 5-Fluorouracil in Bangladesh. Prolonged Worthwhile Survival in Gastrointestinal Malignancies ... 377
Chen, Y. M. and Singh, D. V.: Tyrosinase Activity and Isozymes in B-16 Mouse Melanomas ... 386
Copeland, D.; Sengar, D. P. S.; Rashid, A.; Perelmutter, L.; Stewart, T., and Harris, J.: Mixed Leucocyte Culture Blocking Factor Activity in the Plasma of Patients with Cancer ... 393
Čihák, A.: Biological Effects of 5-Azacytidine in Eukaryotes. A Review ... 405
Ablin, R. J.; Bruns, G. R.; Guinan, P. D., and Bush. I. M.: Migration-Inhibitory Effect of Serum from Patients with Prostatic Cancer ... 423
Gershbein, L. L.; Benuck, I., and Shurrager, P. S.: Influence of Stress on Lesion Growth and on Survival of Animals Bearing Parenteral and Intracerebral Leukemia L1210 and Walker Tumors ... 429
Swain, A. and Trounce, J. R.: Rosette Formation in Hodgkin's Disease. Effect of Treatment ... 449
Lehane, D. E. and Lane, M.: Immunocompetence in Advanced Cancer Patients prior to Chemotherapy ... 458
Lo, J. S.; Mirakian, A., and Kellen, J. A.: Suppression of Mouse Ependymoma Growth after Immunization with Tumor Ribosomal Complexes ... 467

VAUPEL, P. and THEWS, G.: Po_2 Distribution in Tumor Tissue of DS-Carcinosarcoma 475
HARD, G. C. and BORLAND, R.: *In vitro* Culture of Cells Isolated from Dimethylnitrosamine-Induced Renal Mesenchymal Tumors of the Rat. II. Behavior and Morphometry 485
COHEN, Y.; BROOK, G.; SOBEL, J. D., and AUSLANDER, L.: ^{85}Sr Uptake in Lung Metastases of Osteogenic Sarcoma. A Case Report 493
FEUER, G. and KELLEN, J. A.: Link between Carcinogenicity and Hepatic Metabolism of 7,12-Dimethylbenz(α)anthracene 499
DEUTSCH, M.; FRIED, A. B.; PARSONS, J. A., and SARTIANO, G.: Primary Malignant Melanoma of the Vagina 509

Oncogenesis – Morphogenesis

STEIN-WERBLOWSKY, R.: Prostaglandin and Cancer 169
DONALDSON, D. J.; MASON, J. M., and JENNINGS, B. R.: Protein Patterns during Regeneration and Wound Healing in the Adult Newt: A Comparative Study Using Gel Electrophoresis 334
NUTINI, L. G.; FARDON, J. C., and POYDOCK, M. E.: Antimitotic Agents and Tumor Regression (With 1 colour plate) 436
SICARD, R. E. and DINICOLA, A. F.: Retardation of Progressive Forelimb Regeneration by Treatment with Neuropharmacological Agents 442
GARRY, V. F., jr.; HARRIS, L. W., and PETRALI, J. P.: Some Effects of Dibutyryl Cyclic Adenosine Monophosphate (DBcAMP) on Rabbit Bone Marrow Cells in Culture: Cell Clumping and Cholinesterase Production 517
TELANG, N. T. and MULHERKAR, L.: *In vitro* Studies on the Effect of Hydrazine on the Morphogenesis of Chick Embryos and the Mechanism of its Action 529

Book Reviews 96, 254, 347, 448
Varia 256
Erratum 352
Author Index 542
Subject Index 544